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AUTHOR Elliot, Jack
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ABSTRACT

This study examines factors in rural high school students' decision to participate in vocational education. The study compares characteristics of rural high school graduates who completed higher proportions of their course work in vocational education with those who completed lower proportions. It also compares characteristics of rural high school students who planned to complete their vocational education at comprehensive schools with those of students who planned to attend vocational schools. The High School and Beyond database, the National Survey of Labor Market Experience--New Youth Cohort, and a survey of Ohio vocational education students were analyzed. Scoring high on the Armed Services Vocational Aptitude Battery and being classified as Hispanic or Native American were negatively associated with high vocational education involvement. Positively associated with high vocational education involvement were enrollment in work-experience programs, high absenteeism, vocational youth club membership, and classification as a White or Hispanic female. Students with higher vocational education involvement scored lower on ability and self-esteem. No difference in high school GPAs was found. Students who came from lower socioeconomic backgrounds were more likely to attend vocational schools than comprehensive schools. Job preparation and enjoyment were the primary reasons that Ohio students enrolled in vocational education courses. The document concludes that vocational education attracts students from lower socioeconomic and ability levels. The research suggests a blend of academic, general, and vocational courses prepares students better than a concentration in vocational education alone. Recommendations for further research are included. The paper contains 12 references. (TES)

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FACTORS RELATED TO THE DECISIONS OF RURAL PUBLIC HIGH SCHOOL STUDENTS TO PARTICIPATE IN VOCATIONAL EDUCATION

Jack Elliot, Assistant Professor
Department of Agricultural and Extension Education
Michigan State University

INTRODUCTION

High school graduation requirements increased throughout the United States as a result of The National Commission on Excellence in Education's report, "A Nation at Risk" (The National Commission on Secondary Vocational Education, 1984). This increase created additional burdens for high school students, especially those contemplating enrolling in elective courses. Students pondering college needed to complete classes in addition to those required for graduation in order to meet entrance requirements.

Rural public high school students faced an additional problem. The elective course selection was often limited in their school districts (Barker, 1985; Barker et al. 1984; and Beckner, 1985). In addition, while some states offered high quality vocational education programs to all students, Bottoms and Copa (1983) and Swanson (1982) noted that 4/5 of the high school students did not have access to highly specialized and diversified vocational education programs, particularly students attending rural schools. Vocational education of any kind was available for only 70 percent of high school students (Campbell & Elliot, 1988). This was significant given that approximately 30 percent of the school aged population were enrolled in rural high schools, and rural schools comprised roughly 75 percent of all the schools in the United States (National Center for Educational Statistics, 1981). Despite the additional graduation requirements and the limited vocational offerings in rural schools, students still enrolled in vocational education courses.

Only limited information was available concerning factors influencing rural public high school students to enroll in vocational education. Personal contacts by vocational teachers and former or present students appeared to influence students to enroll in vocational programs (Lejeune, 1977; Pershing & Schwandt, 1980; Scanlon et al., 1984). Dube (1987) agreed that effective means were needed to recruit students, but a satisfying program was necessary to retain current students. Otto (1987) and Abendroth (1985) claimed parents were the most influential group on students' decision-making processes, yet Osguthorpe (1976) and Beukes (1986) disagreed and stated parents as well as the influence of guidance counselors, teachers, and friends had an insignificant impact on students' decisions of occupational choice and career decision.

Harr (1983) recorded a variety of reasons for entering a vocational education program. Some of the more notable reasons follow: 1) to learn a specific skill, 2) job opportunities, 3) pre-vocational experiences, 4) influence of counselor or friends, 5) visit to the vocational center, and 6) room in one's schedule. Scanlon et al. (1984) and Abendroth (1985) recorded barriers preventing or curtailing enrollment in vocational education programs. The most prominent findings follow: 1) transportation to a joint vocational school, 2) the quality of the vocational courses, and 3) length of time in a

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vocational course.

Smith et al. (1986) compared students' perceived outcomes of vocational education. This study failed to directly confront the issue of why a student enrolls in vocational education. The lack of studies addressing this issue, especially in the rural setting, and the conflicting findings indicated a need for research to be initiated.

PURPOSE AND OBJECTIVES

The purpose of this study was to identify the factors related to the decisions of rural high school students to participate in vocational education. The specific objectives of this study were:

1. To compare the individual characteristics of rural public high school graduates who completed higher proportions of their course work in vocational education with those rural public high school graduates who completed lower proportions of their course work in vocational education.

2. To compare the individual characteristics of rural public high school students who planned to complete high proportions of their course work in vocational education at comprehensive schools with those rural public high school students who intended to complete high proportions of their course work in vocational education at vocational schools (JVS's).

3. To determine the reasons rural public high school students enroll in vocational education courses.

PROCEDURES

Two national longitudinal data bases, High School and Beyond (HS&B) and the National Survey of Labor Market Experience-New Youth Cohort (NLS), provided the bases for analyses for objective one. In addition, a face-to-face survey and replica questionnaire were administered to a small randomly selected sample of Ohio rural public high school students. The Ohio information was used to address objectives two and three.

Objective One

The High School and Beyond (HS&B) survey involved approximately 28,000 high school seniors and 30,000 sophomores originally interviewed in 1980. Since that time, follow-up surveys have been conducted every two years. Transcript information was collected from a representative sample (18,427) of the original 30,000 sophomores interviewed in 1980. This study utilized data from 1372 rural public high school students who graduated in 1982.

The National Survey of Labor Market Experience-Youth Cohort (NLS) contained 12,868 individuals ranging in age from 14-21 years at the time of the first interviews in 1979. Follow-up interviews occurred annually from 1979 to 1985. Transcript data were collected from over 80% of the members representing the sample. Three-hundred and nine rural public high school students who graduated in 1982 provided the data for this study.

The dependent variable for the regression analyses was the proportion of time a student spent in vocational courses. This was calculated by dividing the number of vocational credits by the total number of credits earned during high school. For example, students who graduated with 6 vocational credits and a total of 24 credits spent 25% (6/24 = .25) of their time in vocational courses.

For descriptive purposes, respondents were classified as vocational education graduates if they completed over 12.5% of their course work in vocational education. Campbell et al. (1981) established five levels of vocational concentration for high school graduates. Students were classified as being in a vocational curriculum if they were labeled as a Concentrator, Limited Concentrator, or Concentrator/Explorer, which meant they usually took more than 12.5 % of their course work in vocational education.

Independent variables included: community unemployment rate, self esteem, absenteeism, 10th- and 12th-grade GPA's, specialty GPA (NLS), who the student lived with at age 14 (NLS), where the student lived at age 14 (NLS), job aspiration at age 35 (HS&B), locus of control (NLS), perceptions of approval from significant others on the decision to attend college and to enter the labor market after high school (NLS), hours watching TV, father's occupation, membership and involvement in vocational education youth organizations, participation in vocational work experience programs, ASVAB score (NLS), and (HS&B) Verbal and Math scores. Factors over which respondents had little or no control such as race/ethnicity, gender, socioeconomic status (SES), size of school (HS&B), year of graduation (NLS), and residential location served as control variables.

Validity and reliability for the selected variables and the replica questionnaire were documented in past editions of the HS&B Data File User's Manual and the NLS Data File User's Manual.

Objectives Two and Three

Fifty-two Ohio high schools were identified as rural. Eight of these schools were randomly selected for this study. Fifteen sophomore students who were planning to enroll in vocational education their junior year were randomly selected from each school as the sample. One-hundred-five students were present with parental permission slips the day of the interview.

The replica questionnaire assessed the individual characteristics of the rural public high school students who planned to complete high proportions of their course work in vocational education at both comprehensive and vocational schools. A field test determined the usability of the replica questionnaire.

The face-to-face survey was designed to determine the reasons why Ohio rural public high school students enroll in vocational education courses. Content validity was established by a panel of experts. Face validity was assessed by examining comments from a field test at a rural high school not included in the sample. Any vague or confusing questions were amended.

ANALYSIS OF DATA

Numeric data were analyzed using the Statistical Packages for Social Sciences/PC+ (SPSS, Inc., 1987). The primary methods of statistical analyses were descriptive, correlation, one-way ANOVA, Chi-square, t-test, and multivariate regression (alpha = 0.05). The reference group for the regression analyses consisted of white males, living in the Midwest, and in NLS low absenteeism rate or in HS&B schools size 5 (300-499 in the senior class). Cross tabulations were utilized to obtain descriptive information.

The Ohio survey interview results were analyzed using qualitative research methods. Categories developed as the results emerged from the data. The information was used to supplement the findings from the longitudinal data bases. Demographic, program, and personal data gathered with the replica questionnaire were used to make comparisons with the longitudinal cohorts.

RESULTS

In the NLS data base, achieving higher ASVAB scores, being classified as a Hispanic or Native American, and those with a missing vocational specialty GPA were negatively associated with completing higher proportions of vocational education courses. Completing higher proportions of vocational education courses was positively associated with vocational work experience programs and high absenteeism.

Variables that were positively associated with completing higher proportions of vocational education courses in the HS&B data base included: membership and leadership roles in vocational youth clubs, participation in vocational work experience programs, the desire to work in a vocational job at age 35, and classification as a white or Hispanic female. Variables that were negatively associated with completing higher proportions of vocational education courses included: higher self-esteem ratings, higher SES ratings, higher HS&B Math and Verbal scores, educational aspirations, students without absenteeism records, respondents residing in the South, West, and Northeast and being classified as a Hispanic male.

A significant difference in the level of SES and two components of SES, father's occupation and family income, was found between Ohio students who planned to enroll at JVS's their junior year and those students who planned to complete higher proportions of vocational education at comprehensive schools. Students going to the JVS their junior year came from families with a lower SES rating than those students who planned to complete high proportions of vocational education at comprehensive schools. In addition, students planning to attend the JVS had lower GPA's than students who planned to remain at their home schools their junior year.

Job preparation ranked as the number one reason (58%) why Ohio students enrolled in vocational education courses. Enjoyment of vocational subject matter and the environment in which the vocational education courses were taught ranked second (52%). Other reasons to enroll in vocational education courses included personal reasons, monetary benefits, perceived ease of grades, attraction of affiliated youth organizations, preparation for education beyond the secondary level, positive prior experiences with vocational teachers, and contacts with individuals in vocational trades.

CONCLUSIONS

Some general patterns emerged from the two data bases. Rural students who completed higher proportions of their course work in vocational education scored lower on ability and self-esteem tests and were from families in lower SES levels, yet no difference in high school GPA's was found. Some motivational variables, such as being a member or leader in a vocational youth organization, participation in vocational work experience programs, the desire to work in a vocational job at age 35, and not seeking postsecondary education, surfaced as being associated with graduates who completed higher proportions of vocational education.

Students enrolled in vocational education courses at the home school felt a sense of belonging. Few people not associated with JVS's spoke highly of them. In addition to the clustering of vocational students in lower SES and ability quartiles, further clustering occurred within vocational education. When compared to home school vocational students, students attending JVS's were significantly lower in ability and SES.

Job preparation was ranked most often as the reason why respondents enrolled in vocational education, but students also enrolled in vocational education for reasons other than job preparation. Students anticipated success in upper division high school vocational education courses because they had previously experienced success in vocational courses, liked the vocational teachers, and enjoyed the subject matter. Rural public high school students believed that enrollment in vocational education would help them acquire jobs, yet not prevent them from attending college. However, most students were uncertain if their present curricula plans would meet college entrance requirements.

Discussion

Vocational education attracts individuals from lower SES and ability levels. This pattern will continue to be the norm unless major substantive changes occur in vocational education. Vocational education is perceived to provide training for jobs and restrict advancement to higher education. Vocational educators need to compare their purposes and definitions of vocational education with the broad purposes and definition suggested by the National Commission on Secondary Vocational Education (1984) and then adjust accordingly. The Commission suggested that vocational education courses emphasize the development of students' computational, writing, and problem solving skills.

Does the fact that no difference was found in high school GPA imply that today's schools are promoting a dual education system where "academic" GPA's and "vocational" GPA's can be equal, but in reality have no bearing when comparing students' educational abilities or backgrounds? One counselor indicated that in his district an academic "A" was worth 5 points compared to a vocational "A" which was worth 4 points. This procedure was followed to prevent vocational students from becoming the schools' valedictorians and winning scholarships which, according to an unwritten policy, should rightfully go to college prep students because they completed harder and more meaningful courses.

Vocational students appear to segregate according to SES and ability levels. Placing vocational and academic education on separate campuses proliferates the image that vocational education is for lower ability persons. John Dewey (1913) warned against a dual education system as he felt it would accentuate class divisions both in and out of school. It appears that Dewey was right.

Vocational educators should emphasize in their recruitment efforts that some students enroll in vocational education courses for reasons other than job preparation. The discrepancy between reasons for enrollment in vocational education and current definitions of vocational education need to be researched.

RECOMMENDATIONS

Recommendations for educators include:

1) Not allowing vocational courses to monopolize the school day. Research indicated that a blend of academic, general, and vocational courses prepares students better than a concentration in any one area.

2) Incorporating and emphasizing computational and writing skills in all vocational courses. Math, English, history, and other academic courses will always be necessary, but supporting basic concepts and encouraging students to appreciate and use proper grammar should be proliferated by all teachers.

Recommendations for researchers follow:

1) This study should be expanded to include suburban and urban public high school students. Comparing the findings from the rural setting with all students would enhance the knowledge base in this area.

2) Longitudinal studies, such as NLS and HS&B, should be continued, and longitudinal studies that include new cohorts should be initiated. This would provide data to assess if more recent high school graduates (than the ones in NLS and HS&B) have altered their vocational enrollment patterns since the advent of requiring additional graduation requirements was begun in the early 1980's.

3) More studies of this nature, combining quantitative data with qualitative methods, need to be encouraged, as they enhance the final results and give additional meaning to the numbers produced in calculations.

4) The wide range in the percentage of the number of students enrolled from each school who elect to enroll at the joint vocational schools requires further investigation.

5) Differences between students in joint vocational schools and comprehensive high schools needs further research.

In William Bennett's recent report (1988), American Education: Making it Work, vocational education was viewed as having only one purpose, to train

students for jobs. Presently, society does not fully understand that there exists more than one purpose for vocational education, and that many factors influence students to enroll in vocational courses. The information in this study should assist educators in developing recruitment procedures that could result in encouraging the appropriate students to enroll in vocational education courses and in modernizing vocational curricula to meet the demands of rural public high school students.

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